

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant : Viraj Chatterjee, et al. Examiner : Kevin M. Nguyen
App. No. : 10/680,930 Art Unit : 2629
Filing date : October 7, 2003 Conf. No. : 7598
Title : INDEPENDENT VIEWS GENERATED FOR MULTIPLE DISPLAY DEVICES
BY A SOFTWARE APPLICATION

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Commissioner for Patents
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REPLY BRIEF

Pursuant to 37 CFR § 41.41, the Examiner's Answer ("Answer"), mailed 9/2/2008, is responded to as follows. Pursuant to 37 CFR 41.43, acknowledgement of receipt and entry of this Reply Brief by the primary examiner is requested.

ARGUMENT

Claims 1-49 are pending and rejected. Claims 1, 18, 35, 46 and 48 are independent claims. The rejection of claims 1-49 is appealed.

The Office should **fully and clearly** state grounds of rejection. MPEP § 707.07(d). Where a rejection is traversed, the Office should **answer the substance** of the applicant's arguments. *Id.* In the prosecution of this application, as demonstrated again in the Answer, the Office has repeatedly failed in its burden to fully and clearly state grounds of rejection and answer the substance of arguments presented. For example, in the Answer, p. 13, the Office seems to have randomly selected MPEP text for its "Principles of Law." The text comes from an Examiner Note in MPEP § 706.02(m) that provides examples of when to use form paragraph 7.27. The form paragraph itself is inapposite¹ to the present case and has not been used by the Office in the Answer or previous actions. The verbatim MPEP quotes are not complete sentences and do not appear to support any explicit argument made by the Office.

Although unclear, the second sentence fragment might be an attempt to argue some burden has shifted. *In re Fitzgerald*, cited in the fragment, states that, "[w]here the Patent Office has reason to believe that a **functional limitation** asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on." *In re Fitzgerald*, 619 F.2d 67, 70 (CCPA 1980) (emphasis added). The Federal Circuit in *In re Schreiber*, which involved a means-plus-function limitation, explained that functional claiming carries with it a risk," 128 F.3d 1473, 1478 (Fed. Cir. 1997), namely that the burden will be so shifted to the applicant.

In this case, the Office has not alleged a **functional limitation** has been asserted to be critical for novelty. The Office has also not provided a reasoned basis to believe any functional

¹ From MPEP § 706.02(m), form paragraph 7.27 states, "Claim [1] rejected under 35 U.S.C. 102([2]) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over [3]." The Examiner Note states, "Examples of circumstances where this paragraph may be used are as follows," and then the note provides six examples of circumstances in which the paragraph may be used, each preceded by "When the." The Office quotes the first two "When the" examples as its principles of law.

limitation is an inherent characteristic of the prior art. Therefore, the relevance of the Office's "Principles of Law," is unclear at best.

Furthermore, even assuming, *arguendo*, that the Office had established a *prima facie* case of anticipation, and the inherency of some functional limitation, and a burden had shifted, which is not conceded, the Appeal Brief would satisfy the burden as it rebuts conceivable arguments for inherency, despite it being unclear whether the Office has raised an inherency argument. *See, e.g.*, Appeal Brief, pp. 12-13.

Claim 1 stands rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Pat. No. 5,488,385 to Singhal et al. ("Singhal"). This contention is respectfully traversed.

The Federal Circuit has long held a very high standard for anticipation. A "claim is anticipated only if each and every element as set forth in the claim is found . . . in a single prior art reference." MPEP § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987)) (emphasis added). The "identical invention must be shown in as complete detail as is contained in the . . . claim." *Id.* (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989)) (emphasis added).

In the Answer, the Office states, "Singhal teaches that in order to display the electronic data file in the LCD display device 52 . . . the computing system 43 has to identify/recognize the characteristics of the LCD display device 52," p. 14 (emphasis added). The Office offers no explanation or arguments about how it arrives at this statement given the logical gaps between it and the portion of Singhal cited as its support:

In the preferred embodiment, the display devices are VESA standard resolution devices including a 640 by 480 pixel resolution STN LCD panel 52 and a conventional high-resolution CRT display 54. The VGA register control data programmed by the CPU 12 to control the operation of the video controller 50 is stored in registers internal to the video control unit 50.

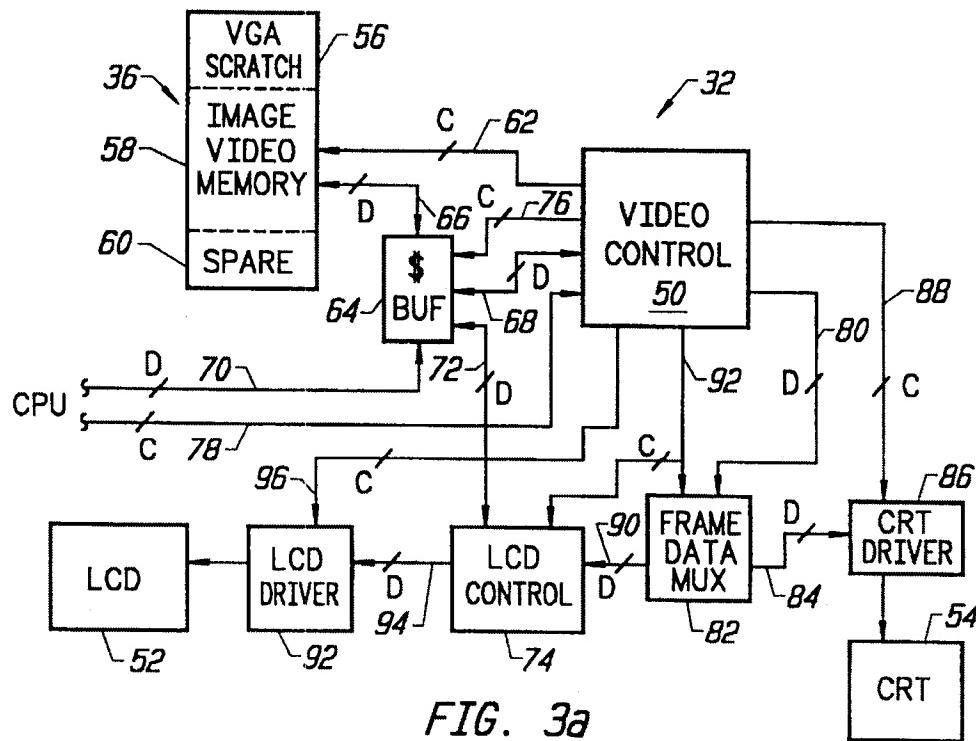
Col. 5, lines 47-53

One gap involves equivocation about the meaning of "identifying." Singhal teaches video controllers. Those of ordinary skill in the art will recognize that such controllers are generally the source of information about display characteristics. Thus an adapter can be aware of display characteristics, because it defines them, without needing to identify them.

Furthermore, that a display device in Singhal has a pixel resolution is distinct from identifying display characteristics of display devices. The VGA register control data of Singhal controls the operation of a video controller. In contrast, claim 1 recites “identifying [not controlling] . . . display characteristics of multiple display devices [not video controllers].”

A more significant gap involves ignoring that the identifying in claim 1 is by a software application. Even assuming, *arguendo*, Singhal discloses identifying display characteristics, the Office admits this would be by “the computer system 43,” rather than by a software application.

The Office further relies on FIG. 3A for support but does not point to any specific part of the figure or offer any explanation of how the “detailed block diagram of the video controller subsystem,” Singhal, col. 3, lines 30-31, supports its logical leaps.



Furthermore, the Office quotes a section of Singhal (col. 5, lines 55-61) and provides no explanation of how the section supports its subsequent conclusion that Singhal discloses all the

features of claim 1. The quoted section of Singhal describes “scratch” (e.g., spare or temporary) memory:

Depending on the control **software** executed by the processor 12 in management of the video display sub-system 32, two banks of scratch/control data storage area may be utilized in support of the respective **configurations** desired for the **display devices** 52, 54. Each bank is **identified** by a unique set of I/O addresses to the processor 12.

Col. 5, lines 55-61 (emphasis added).

Though several keywords are identical or similar to words in claim 1, the mere presence of similar words without considering the context and sense in which they are used is insufficient to support a finding of anticipation. Singhal teaches two memory banks supporting *configurations of display devices*, but not *identifying* display characteristics of multiple display devices. Singhal teaches *software* that affects whether two memory banks are used, but not *identifying* by a software application.

“[I]dentified by” as used in the cited portion of Singhal describes how each of the two memory banks is distinguished from the other because each has a unique set of I/O addresses. In context, this use is clearly distinct from claim 1 which recites “*identifying, by a software application . . . , display characteristics of multiple display devices.*” Thus, Singhal teaches *memory banks* are identified *by* unique I/O addresses, but not *identifying* display characteristics.

Because Singhal does not show the identical operations as claim 1, much less in as complete detail, reversal of the rejection of claim 1 is respectfully requested.

Claims 18, 35 and 48 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Singhal. Claim 46 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Singhal in view of U.S. Pat. No. 6,956, 542 to Okuley et al. (“Okuley”). These contentions are respectfully traversed. Claims 18, 35, 46 and 48 have similar features to independent claim 1. Thus, for at least the above reasons, the rejection of independent claims 18, 35, 46 and 48 should be overturned.

Claim 37 stands rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Singhal. This contention is traversed. Claim 37 depends from claim 35, which has been shown to be allowable above, and claim 37 is, therefore, allowable also for this reason and the additional recitations it contains.

For example, the Office, in the Answer, p. 15, again refers to the same portion of Singhal to support its contention that Singhal allegedly discloses “periodically polling display interface hardware,” as recited by claim 37. The Office provides the text of the Singhal portion but no explanation at all, much less how the portion discloses “periodically polling.”

Depending on the control software executed by the processor 12 in management of the video display sub-system 32, two banks of scratch/control data storage area may be utilized in support of the respective configurations desired for the display devices 52, 54. Each bank is identified by a unique set of I/O addresses to the processor 12.

Col. 5, lines 55-61.

Those of ordinary skill in the art will recognize that “polling” involves requesting data from a source. Although Singhal discloses that the use of two memory banks depends on *software*, Singhal does not disclose a software application that “identifies the display devices that are currently interfaced with the data processing system by periodically polling display interface hardware,” as recited by claim 37. Singhal, furthermore, does not include the words “polling,” “poll,” or “request,” and the Office has failed to provide any explanation of how Singhal can be considered to teach periodic polling, as claimed. Therefore, for at least these reasons, reversal of the rejection of claim 37 is respectfully requested.

Claim 49 stands rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Singhal. This contention is respectfully traversed. Claim 49 depends from claim 48, which has been shown to be allowable above, and claim 49 is, therefore, allowable also for this reason and the additional recitations it contains.

For example, claim 49 recites “software-application-means for controlling the outputting software-application-means based on user configuration.” The Office, in the Answer, p. 15, contends that a laptop, with an inherent keyboard or pointing device, allegedly anticipates claim 49. Even assuming the alleged inherency, *arguendo*, neither a keyboard or point device is software-application-means, as recited by claim 49. One of ordinary skill in the art will recognize that software-application-means involves application software encoded on a machine readable medium. A keyboard or pointing device is not application software encoded on a machine readable medium. Therefore, the Office’s inherency argument fails for at least these two reasons. Reversal of the rejection of claim 49 is respectfully requested.

Claim 2 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Singhal in view of U.S. Pat. No. 7,010,551 to Terayama et al. ("Terayama"). This contention is respectfully requested.

"**[R]ejections on obviousness cannot be sustained by mere conclusory statements;** instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." MPEP § 2142 (*citing KSR v. Teleflex*, 127 S.Ct. 1741 (2007)) (emphasis added). In addition, if the proposed combination of prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP § 2143.01(VI).

Singhal discloses a video controller that must be hardware to achieve the objective of driving display devices. Terayama, on the other hand, discloses a software-based method of converting a file. Modifying Singhal with Terayama would either change the principle of operation of the Singhal invention or require the combination to be a hardware device. In either case, the combination is inappropriate and is not sufficient to render the claims *prima facie* obvious.

In addition, claim 2 depends from claim 1, which has been shown to be allowable above, and claim 2 is, therefore, allowable also for this reason and the additional recitations it contains.

For example, claim 2 recites, "wherein generating the independent views comprises **separately rendering the** electronic document according to presentation tags associated with content in the electronic document, the presentation tags indicating **device-dependent rendering** to be applied to the content based upon assigned device types of the display devices." The Office cites a portion of claim 1 of Terayama to support its contention of obviousness:

and composed of a plurality of pieces of data displayable on a display unit and with a start and an end of each piece of data indicated by respective identifiers in the form of tags, data displayable on a limited-capability device,

Col. 17, line 67 – col. 18, line 3.

The cited portion of Terayama does not disclose **separately rendering** a single document (i.e., "the electronic document") according to presentation tags indicating **device-dependent rendering**. The mere disclosure of "tags" by Terayama does not address these additional features

of claim 2. For at least these reasons, reversal of the rejection of claim 2 is respectfully requested.

Claim 3 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Singhal in view of Terayama. This contention is respectfully traversed. Claim 3 depends from claim 2, which has been shown to be allowable above, and claim 3 is, therefore, allowable also for this reason and the additional recitations it contains.

For example, claim 3 recites “wherein identifying the display characteristics comprises periodically re-identifying the display characteristics of the display devices, in conjunction with **multiple iterations of the separate renderings** of the electronic document to allow display devices to be added and removed dynamically.” In the Answer, p. 16, the Office does not address the “multiple iterations of the separate renderings” feature of claim 3, but then proceeds, regardless, to an unsupported conclusion: “As the result, the combine [sic] teaching [sic] of Singhal and Terayama render [sic] disclose limitations ‘wherein identifying the display characteristics comprises periodically re-identifying the display characteristics of the display devices, in conjunction with multiple iterations of the separate renderings of the electronic document to allow display devices to be added and removed dynamically.’” Because of the complete lack of support or even attempt at support for the rejection of all the features of claim 3, reversal of its rejection is respectfully requested.

Claim 12 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Singhal in view of U.S. Pat. No. 7,102,591 to Shih (“Shih”). This contention is traversed. Claim 12 depends generally from claim 1, which has been shown to be allowable above, and claim 12 is, therefore, allowable for this reason and the additional recitations it contains.

For example, claim 12 recites “wherein generating the independent views of the electronic document comprises generating **a user interface** with the first view that provides control over the independent views on the display devices both together and separately.” In the Answer, the Office does not address generating a user interface, as recited by claim 12:

Singhal further teaches that “[i]n the preferred embodiments, where independent images are to be simultaneously displayed, the frame data for the separate display devices 52 and 54 is stored in an interleaved or alternating series of data storage locations.” Col. 6, lines 35-39.

Answer, p. 17.

The frame data described in Singhal does not constitute a user interface as claimed. As the Office has not shown or attempted to show all the features of claim 12 to be obvious, reversal of the rejection is respectfully requested.

Claim 43 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Singhal in view of Terayama, and further in view of U.S. Pat. No. 5,917,480 to Tafoya (“Tafoya”). This contention is respectfully traversed. References should not be combined where the proposed modification renders the prior art unsatisfactory for its intended purpose. MPEP § 2143.01(V). Singhal, Terayama and Tafoya should not, therefore, be combined because the modification of the video controller of Singhal would render it unsatisfactory for its intended purpose as a money-saving hardware device that can be installed in a computer. *See* Singhal, col. 2, lines 49-53 (“Art [sic] advantage obtained by the present invention is therefore, the simultaneous generation of independent displayable images utilizing common display control hardware for the storage of the images and the generation of the display image control and data signals”), col. 3, lines 11-15 (“logical emulation of multiple conventional VGA display adapters permits . . . , while at the same time greatly reducing the quantity, cost and complexity of the display system hardware.”). Since Terayama and Tafoya are directed to software solutions, the modification would require a complete computer system having an operating system and capable of operating independently. The combination, therefore, would not reduce the quantity, cost and complexity of the display system hardware.

In addition, claim 43 also depends generally from claim 35, which has been shown to be allowable above, and claim 43 is, therefore, allowable for this reason and the additional recitations it contains.

For example, claim 43 recites, “wherein the primary view includes at least a portion of a user interface that provides control over the independent views on the display devices both together and separately, and the secondary view forms part of a slide show presentation.” The Office, in the Answer, p. 17, relies on Tafoya, which discloses, “The user may select among four different editing modes: slide-view, outline-view, slide-sorter, and notes view.” One of ordinary skill in the art will recognize that there is a distinction between a slide-view editing mode and a

slide show presentation. The former involves creating, and the later in involves presenting. In addition, if Tafoya disclosed control over "action items slides," which is not conceded, that would be distinct from claim 43's "control over the independent views on the display devices both together and separately." Since Singhal in view of Terayama, and further in view of Tafoya, does not make claim 43 obvious, reversal of the rejection is respectfully requested.

Claims 44 and 45 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Singhal in view of Terayama, further in view of Tafoya, and still further in view of U.S. Pat. No. 5,859,623 to Meyn ("Meyn").

Claim 13, 16, 17, 30, 33 and 34 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Singhal in view of Shih, and further in view of Meyn. Shih and Meyn do not cure the deficiencies of Singhal with respect to claims 1 or 12, from which claims 13, 16 and 17 depend, or with respect to claims 18 and 29, from which claims 30, 33 and 34 depend.

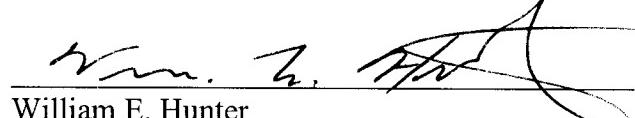
Accordingly, it is respectfully requested that the rejection be reversed.

For these reasons, and the reasons stated in the Appeal Brief, the final rejection of all claims should be reversed.

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Respectfully submitted,

Date: Nov. 3, 2008


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